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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/595,765	05/10/2006	Robert Jochemsen	NL031407	6258
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EXAMINER				
LOONAN, ERIC T				
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/595,765

Applicant(s)

JOICHEMSEN ET AL.

Examiner

ERIC LOONAN

Art Unit

2189

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 September 2008.
2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 1,2 and 5-16 is/are rejected.
7) ☒ Claim(s) 3 and 4 is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☒ The drawing(s) filed on 10 May 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/003)
Paper No(s)/Mail Date _____
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____

DETAILED ACTION

This Office Action, based on application 10/595,765 filed 10 May 2006, is in response to Applicant's amendment submitted 25 September 2008. **Claims 1-16** are currently pending and have been considered below.

Claim Rejections - 35 USC § 112

1. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

2. **Claim 14** is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The specification does not define the "computer readable medium" as amended in **Claim 14**. The added claim limitation presents a new matter issue.

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. **Claims 1-2, and 5-16** are rejected under 35 U.S.C. 102(b) as being anticipated by Vishlitzky et al (US Patent 5,737,747) hereinafter known as Vishlitzky.

3. **Claim 1:** Vishlitzky teaches a method of handling a group of at least one data object by issuing a data handling request to be processed by a storage device organized in allocation units by execution of at least one storage device request in a pre-determined data handling period, the method comprising: determining the number of data handling requests to be handled in the data handling period (Col 12, Line 58); determining an upper boundary for a number of allocation units involved per data handling request (Col 12, Line 56; bandwidth); determining an upper boundary for a number of storage device requests by multiplying the number of data handling requests and the upper boundary of the number of allocation units involved (Col 12, Line 60); determining an upper boundary for an amount of time consumed by execution of the data handling requests during the data handling period by determining an amount of time needed for execution of the upper bound for the number of storage device requests (Col 12, Lines 51-54); reserving the amount of time in a data handling period for execution of the storage device requests (Col 12, Lines 61-65); and handling the data objects by executing the storage device requests (it is inherent in the scheduling art for a task scheduler to execute a task after reserving time for execution of the task).

4. **Claim 2:** Vishlitzky teaches a method according to claim 1, wherein a maximum size of the data objects is substantially smaller than a size of allocation units (Col 14, Lines 24-36); the data objects are stored non-contiguously at a substantially equal logic distance from each other such that multiple data objects can be stored in one allocation

unit (Col 10, Lines 38-39); the determining of the upper boundary for the number of allocation units involved per data handling request is replaced by determining an upper boundary of a number of data spaced at the substantially equal logic distance (Col 10, Lines 40-42); and determining an upper boundary for the number of storage device requests is replaced by taking the sum of the number of data handling requests and the number of data objects (Col 10, Lines 40-42; Col 12, Lines 61-65).

5. **Claim 5:** Vishlitzky teaches a method according to claim 1, wherein the data objects include video frames comprised by a stream of audiovisual data (Col 15, Lines 62-65).
6. **Claim 6:** Vishlitzky teaches a method according to claim 5, wherein the stream of audio-visual data includes inter-coded and intra-coded frames (Col 15, Line 65).
7. **Claim 7:** Vishlitzky teaches a method according to claim 6, wherein the multiple data objects to which the data handling requests are related are at least some of the intra-coded frames (Col 15, Lines 51-60).
8. **Claim 8:** Vishlitzky teaches a method according to claim 1, wherein determining the upper boundary for the amount of time consumed by execution of the data handling request includes multiplying the upper boundary for the number of storage device requests by an amount of time consumed by a storage device request (Col 9, Lines 60-67; Col 12, Lines 55-57).
9. **Claim 9:** Vishlitzky teaches a method according to claim 8, wherein the amount of time consumed by the storage device request is pre-determined (Col 12, Lines 55-57).

10. **Claim 10:** Vishlitzky teaches a method according to claim 1, wherein the storage device is a disk drive (Col 1, Lines 32-33) and the determination of the upper bound for the amount of time further takes into account at least one of the following parameters: an amount of time required for one revolution of a disk; a seek time of a pick-up unit of the disk drive to a location on a disk where a data object is located to which the data handling request is aimed; and a time needed to retrieve the data object to which the data handling request is aimed (Col 14, Lines 7-23).

11. **Claim 11:** Vishlitzky teaches a method according to claim 2, wherein the storage device is a disk drive (Col 1, Lines 32-33) and the determination of the upper bound for the amount of time consumed by execution of the data handling request further takes into account at least one of the following parameters: an amount of time required for one revolution of a disk; a seek time of a pick-up unit of the disk drive to a first location on a disk where a first data object is located to which the data handling request is aimed; and a time needed to retrieve the data object to which the first data handling request is aimed; and a time needed for the pick-up unit to move from the first location on the disk to a second location on the disk where a second, subsequent data object is located to which the data handling request is aimed (Col 14, Lines 7-23).

12. **Claim 12:** Vishlitzky teaches a method according to claim 1, wherein the determination of the upper boundary for the number of allocation units involved per data handling requests includes dividing the size of the data object by the size of one allocation unit (Col 9, Lines 49-51; Col 12, Lines 55-57).

13. **Claim 13:** Vishlitzky teaches an apparatus for handling a group of at least one data object by a data handling request to be processed by at least one storage device request handled in data handling periods, the data handling to be performed by a storage device organized in allocation units, the apparatus comprising a central processing unit conceived to: determine a number of data objects to be handled per data handling period (Col 12, Line 58); determine an upper boundary for a number of allocation units involved per data handling request (Col 12, Line 56; bandwidth); determine an upper boundary for a number of storage device requests by multiplying the number of data handling requests by the upper boundary of the number of allocation units involved (Col 12, Line 60); determine an upper boundary for an amount of time consumed by execution of the storage device requests for handling the data objects during one data handling period by multiplying the upper boundary for the number of storage device requests by an amount of time consumed by a storage device request (Col 12, Lines 51-54); reserve the amount of time consumed by execution of the storage device requests in the data handling period for execution of the storage device requests (Col 12, Lines 61-65); and handle the data objects by executing the storage device requests (it is inherent in the scheduling art for a task scheduler to execute a task after reserving time for execution of the task).

14. **Claim 14:** Vishlitzky teaches a computer program product recorded on a computer readable medium that enables a computer to execute the method according to claim 1 (it is inherent in the scheduling art that a scheduler is a computer program product).

15. **Claim 15:** Vishlitzky teaches a record carrier carrying the computer program product according to claim 14 (it is inherent in the scheduling art that a scheduler can be stored on a record carrier).
16. **Claim 16:** Vishlitzky teaches a programmed computer enabled to execute the method according to claim 1 (it is inherent in the scheduling art that a scheduler can be enabled on programmed computer).

Allowable Subject Matter

17. **Claims 3 and 4** are allowable over prior art. The claims are objected to due to their dependency on rejected claims.

Response to Arguments

Applicant's remarks submitted 25 September 2008 in response to Office Action mailed 25 June 2008 have been fully considered below.

Claim Rejections under 35 U.S.C. § 101

The claim has been amended to embody the non-statutory subject matter (computer program product) on a "computer readable medium". The reasons for the rejection have been overcome by the amendment; however, a new rejection has been issued for the claim. A "computer readable medium" is not defined in applicant's specification. Therefore, a "computer readable medium" is considered new matter introduced into the application and is therefore rejected under 35 U.S.C. § 112.

Claim Rejections under 35 U.S.C. § 102

Applicant argues that the prior art of record fails to teach Claim 1's limitation of "an upper boundary for a number of allocation units involved for a data handling request". The Examiner relies on column 12, line 56 ("bandwidth") to teach the disclosed limitation. The applicant argues that Examiner's assertion is incorrect, since "bandwidth" is not equivalent to teaching an upper boundary.

The Examiner has considered applicant's remarks; however, is not persuaded by them and retains the rejection of record. The Examiner maintains that one of ordinary skill in the art would know that the term "bandwidth" specifies a range with upper and lower limits. Therefore, the "bandwidth" inherently discloses an upper boundary.

Applicant argues that the prior art of record fails to teach Claim 1's limitation of "determining an upper boundary for a number of storage device requests by multiplying the number of data handling requests and the upper boundary of the number of allocation units involved". The Examiner relies on column 12, line 60 to teach the disclosed limitation. The applicant argues that the cited reference fails to teach an upper boundary.

The Examiner has considered applicant's remarks; however, is not persuaded by them and retains the rejection of record. The limitation "upper boundary for a number of storage device requests" does not hold any specific meaning other than describing a result of the product of "number of data handling requests" and "upper boundary of the number of allocation units involved". The Examiner maintains that the cited portion of the prior art of record discloses applicant's limitation.

Conclusion

18. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ERIC LOONAN whose telephone number is (571)272-6994. The examiner can normally be reached on Monday-Friday, 7:30am-5:00pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Reginald Bragdon can be reached on (571) 272-4204. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Eric Loonan/
Examiner, Art Unit 2189

/Reginald G. Bragdon/
Supervisory Patent Examiner, Art Unit 2189